



PATENT
P56258

AR
IZW
\$

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

In re Application of:

Appeal No. _____

TAE-YOUNG KIL

Serial No.: 09/801,807

Examiner: DANIEL JR., WILLIE J.

Filed: 9 March 2001

Art Unit: 2686

For: METHOD AND APPARATUS TO GENERATE AN ALARM ON
OCCURRENCE OF CELL SECESSION OF A MOBILE STATION IN A
MOBILE COMMUNICATION SYSTEM (as amended)

Attn: Board of Patent Appeals & Interferences

Paper No. 14

APPEAL BRIEF

Mail Stop Appeal Brief-Patents

Commissioner for Patents

P.O.Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to Appellant's Notice of Appeal filed on 19 October 2004, Appellant hereby
appeals to the Board of Patent Appeals and Interferences from the final rejection of claims 25-31,
as set forth in the final Office action mailed on 19 May 2004 (Paper No. 7) and in the Advisory
Action mailed on 6 October 2004 (Paper No. 20040930)

Folio: P56258

Date: 12/17/04

I.D.: REB/HZ/kf/gc

12/20/2004 SSESHE1 00000002 09801807 500.00 DP
01 FC:1402

I. REAL PARTY IN INTEREST

Pursuant to 37 CFR §41.37(c)(1)(as amended), the real party in interest is:

SamSung Electronics Co., Ltd.
#416, Maetan-dong, Yeongtong-gu
Suwon-si, Gyeonggi-do, Republic of KOREA

as evidenced by the Assignment executed by the inventor on February 27, 2001 and recorded by the US Patent and Trademark Office on March 9, 2001 at Reel 011610, Frame 0903.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals and no interferences known to Appellant, Appellant's legal representatives or the assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-24 have been canceled. Claim 31 has been objected to as failing to include a "." at the end of the claim. Claims 25-31 are on appeal.

IV. STATUS OF AMENDMENTS

An Amendment After Final was submitted to the US Patent and Trademark Office on August 19, 2004. The Amendment After Final was not entered for the reasons stated in the October 6, 2004 Advisory Action.

A Petition Under 37 CFR §1.181 requesting entry of the Amendment After Final was submitted concurrently with the Notice of Appeal on October 19, 2004. Appellant's have yet to receive a written response to the Petition. However, the Appellant has been informed by telephone that the Petition was denied.

V. SUMMARY OF INVENTION

As noted in the Field of the Invention, the present invention relates to a radio mobile communications system adapted to generate an alarm signal when a mobile station secedes from a selected cell of a mobile communications system, the alarm informing a user of the mobile station of the secession.

More particularly, as illustrated in Figure 2 and discussed on pages 12-14 of the present specification, the public/private communications service unit 12 of Figure 1 receives a power control parameter from a base station controller and then receives information about the received power level from the mobile station. The received power level from the mobile station is the measured power level of the signal that the mobile station receives from the base station. The base station then detects frame quality information and compare this the frame quality with the power control parameter from the base station controller to determining if the mobile station is seceding from a particular cell. Upon such a determination, the base station transmits cell secession alarm information to the mobile station if the mobile station is registered in the private wireless communications system, the mobile station generating an alarm signal based on the cell secession

alarm information.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 25-31 have been rejected under 35 USC §103 as unpatentable over McClelland *et al.*, U.S. Patent No. 6,330,438 in view of Khan *et al.*, U.S. Patent No. 5,926,760 and Hong, U.S. Patent No. 6,298,241 for the reasons stated in section 3 on pages 3-15 of the May 19, 2004 Final Office Action (Paper No. 7).

More specifically, the Examiner alleges it would be obvious to combine the features of McClelland *et al.* and Khan *et al.* and Hong to produce combinations which purportedly meet the recited limitations of rejected claims 25-31.

VIII. ARGUMENT

Claims 25 and 26:

The Examiner alleges that McClelland *et al.* teaches all of the recited limitations of claim 25 except for the limitations "registered in the private wireless communications system, detecting and comparing frame quality, and transmitting no cell secession alarm information when not registered in the private radio mobile communications system" and "detecting and comparing the frame quality". The Examiner then alleges that Khan *et al.* and Hong respectively teach the above-noted limitations deficient in McClelland *et al.*

It is asserted that the Examiner's rejection of claim 25 is improper and should be reversed for the following reasons:

Claim 25 recites "receiving power-related information transmitted from the mobile station and detecting information about the frame quality from the received information" (emphasis added).

That is, the limitation cited above clearly implies that the power-related information is determined at the mobile station and not at a cell site and further implies that the power-related information is received by the cell site, the cell site detecting information about the frame quality from the received information that has been transmitted from the mobile station.

On the other hand, as noted in the paragraph beginning on line 63 of column 3 and ending on line 12 of column 4 of McClelland et al., the power level of the received voice signal from the mobile unit 62 is measured at the cell site 64 and not at the mobile unit 62.

Accordingly, the McClelland et al. teaches away from the first limitation of claim 25.

The Examiner then admits that McClelland et al. fails to teach [determining whether the mobile station is] registered in the private wireless communications system, detecting and comparing frame quality, and transmitting no cell secession alarm information when [the mobile

station] is not registered in the private radio mobile communications system.

The Examiner then alleges that registering [the mobile station] in the private wireless communications system was taught by Khan et al. The Examiner then makes the **unsupported** statement that "When the mobile station is not registered with the private communications system, the mobile station will have communication with the public communications system in which transmitting of no cell secession alarm would be **inherent**" in Khan et al.

The Appellant disagrees with the unsupported statement of the Examiner in that there is no teaching no suggestion or even consideration of the feature that the Examiner considers to be **inherent** in Khan et al.

The Examiner then **admits** that the combination of McClelland et al. and Khan et al. fails to teach detecting and comparing the frame quality and then alleges that since Hong teaches detecting information about the frame quality from the received information when the mobile station provides power measurement to the base station with the power level and the frame error rate and comparing the frame quality with a power control parameter value of the system, it would be obvious to combine McClelland et al. and Khan et al. and Hong "in order to improve signal quality by adjusting the power and to deteriorate the frame error rate of a signal in a wireless communications system".

The Appellant disagrees in that Hong relates to a method of performing power control in a mobile communications system in which the channel gain between the mobile station and the base station is adjusted based on mobile station error rate information concerning received forward frames. There is no teaching or suggestion or even consideration of notifying that mobile station user of an impending loss of a call to do leaving a particular cell nor does it teach or suggest or even consider whether the mobile unit is registered.

Thus, Hong is totally unrelated in subject matter to McClelland et al. or Khan et al. nor is there any teaching or incentive in either McClelland et al. or Khan et al. to combine the teachings of Hong with the teachings of McClelland et al. and Khan et al. to produce a combination which purportedly meet the recited limitations of claim 25.

Rather, the Examiner has used hindsight based on the teachings of the present application to produce a non--obvious combination.

In view of the above, it is asserted that claim 25 is patentable over McClelland et al. and Khan et al. and Hong.

With regard to claim 26, it is asserted that claim 26 is patentable over McClelland et al. and Khan et al. and Hong by its dependency upon claim 25.

Claim 27:

With regard to claim 27, the Examiner alleges that the combination of McClelland et al. and Khan et al. teaches that the power-related information includes at least one of a hand off measurement message which reads on the claimed "power measurement report message" as to the received power level from the mobile station where the mobile station has the power measurement of the reverse link for determining the handoff from one cell site to another cell site.

The Examiner then **admits** that the proposed combination fails to teach an erasure indicator bit as recited in claim 27. The Examiner then argues that since Hong teaches the use of an erasure indicator bit with regard to an error detected field when the mobile station transmits power information with the frame error rate by using a power measurement report message the frames have an erasure indicator bit that is extracted to detect and error, it would be obvious to add the erasure indicator bit of Hong to the combination of McClelland et al. and Khan et al. "in order to improve signal quality by adjusting the power and to deteriorate the frame error rate of a signal in a wireless communications system".

The Appellant disagrees with the Examiner for the same reasons noted above with regard to claim 25. That is, Hong is totally unrelated in subject matter to McClelland et al. or Khan et al. nor is there any teaching or incentive in either McClelland et al. or Khan et al. to combine the teachings of Hong with the teachings of McClelland et al. and Khan et al. to produce a combination which purportedly meet the recited limitations of claim 27.

In view of the above, it is asserted that claim 27 is patentable over McClelland et al. and Khan et al. and Hong.

Claims 28 and 29:

With regard to claims 28 and 29, these claims are method claims corresponding to claims 25 and 26 but clearly now recite essentially inherent features of claims 25 and 26. Namely, claim 28, for example, now recites "receiving power-related information in the base station, the power-related information being related to a received power level of the base station and the mobile station and being generated and transmitted from the mobile station to the base station".

The Examiner has rejected claims 28 and 29 for virtually the same reasons stated with regard to claims 25 and 26 and accordingly, the Appellant asserts that claims 28 and 29 are patentable over McClelland et al. and Khan et al. and Hong for the reasons noted above with regard to claims 25 and 26.


Claims 30 and 31:

With regard to claims of 30 and 31, these claims are apparatus claims reciting elements adapted to perform functions corresponding to the recited method steps of method claims 28 and 29.

Accordingly, the Examiner has rejected claims of 30 and 31 for virtually the same reasons

stated with regard to claims 28 and 29 and accordingly, the Appellant asserts that claims 30 and 31 are patentable over McClelland et al. and Khan et al. and Hong for the reasons noted above with regard to claims 28 and 29.

Respectfully submitted,



Robert E. Bushnell,
Attorney for the Appellant
Registration No.: 27,774

1522 "K" Street N.W., Suite 300
Washington, D.C. 20005
(202) 408-9040

Folio: P56258
Date: 12/17/04
I.D.: REB/HZ

IX. APPENDIX

CLAIMS UNDER APPEAL (Claims 25-31)

1 25. (Previously Presented) A method of generating an alarm on an occurrence of a cell
2 secession of a mobile station located within a common cell area of a public and private radio
3 mobile communication system, the method comprising:

4 receiving power-related information transmitted from the mobile station and detecting
5 information about the frame quality from the received information;

6 comparing the frame quality information with a power control parameter value of the
7 system;

8 determining whether the mobile station is registered in the private wireless communication
9 service system upon a determination that a power level of the mobile station is less than a
10 predetermined reference power level;

11 transmitting information for generating an alarm on an occurrence of a cell secession to the
12 corresponding mobile station upon a determination that the mobile station is registered in the
13 private radio mobile communication system; and

14 transmitting no cell secession alarm information to the corresponding mobile station upon
15 a determination that the mobile station is not registered in the private radio mobile communication
16 system.

1 26. (Previously Presented) The method as claimed in claim 25, wherein transmitting the
2 cell secession alarm information to the mobile station comprises transmitting a predetermined tone
3 control message over a forward traffic channel.

1 27. (Previously Presented) The method as claimed in claim 25, the power-related
2 information including at least one of a power measurement report message as to the received
3 power level from the mobile station and an erasure indicator bit as to an error detected field.

1 28. (Previously Presented) A method comprising:
2 receiving in a base station of a public and private radio mobile communication system a
3 power control parameter of a mobile station located within a common cell area of the public and
4 private radio mobile communication system from a base station controller of the mobile
5 communication system;

6 receiving power-related information in the base station, the power-related information
7 being related to a received power level of the base station at the mobile station and being generated
8 and transmitted from the mobile station to the base station;

9 the base station detecting information as to a frame quality by determining a forward frame
10 error rate from the received power-related information;

11 comparing the determined forward frame error rate with a value corresponding to the power
12 control parameter received from the corresponding base station controller to provide a determined
13 power level of the mobile station;

14 determining when the determined power level of the mobile station decreases below a
15 predetermined reference power level indicating that the mobile station has seceded from a selected
16 cell of the mobile communication system;

17 determining whether the mobile station is registered in the private radio mobile
18 communication system when the determined power level of the mobile station is less than the
19 predetermined reference power level;

20 transmitting information for generating an alarm on an occurrence of a cell secession to the
21 corresponding mobile station upon a determination that the mobile station is registered in the
22 private radio mobile communication system; and

23 transmitting no cell secession alarm information to the corresponding mobile station upon
24 a determination that the mobile station is not registered in the private radio mobile communication
25 system.

1 29. (Previously Presented) The method as claimed in claim 28, the power-related
2 information including at least one of a power measurement report message as to the received
3 power level from the mobile station and an erasure indicator bit as to an error detected field.

1 30. (Previously Presented) An apparatus comprising:
2 a base station of the mobile communication system adapted to receive power-related
3 information transmitted from a mobile station located within a common cell area of a public and
4 private radio mobile communication system, the power-related information being related to a

5 received power level of the base station at the mobile station and being generated and transmitted
6 from the mobile station to the base station;

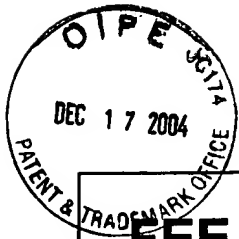
7 an analyzer adapted to analyze the received power-related information to determine when
8 a power level of the mobile station decreases below a predetermined reference power level
9 indicating that the mobile station has seceded from a selected cell of the mobile communication
10 system;

11 the analyzer also adapted to determine whether the mobile station is registered in the
12 private radio mobile communication system upon a determination that a power level of the mobile
13 station is less than a predetermined reference power level;

14 a transmitter adapted to transmit cell secession alarm information for generating an alarm
15 on an occurrence of a cell secession to the corresponding mobile station upon a determination that
16 the mobile station is registered in the private radio mobile communication system; and

17 the transmitter adapted to transmit no cell secession alarm information to the corresponding
18 mobile station upon a determination that the mobile station is not registered in the private radio
19 mobile communication system.

1 31. (Previously Presented) The apparatus as claimed in claim 30, wherein the transmitter
2 is adapted to transmit a predetermined tone control message over a forward traffic channel of the
3 mobile communication system indicating that the mobile station has seceded from the selected cell
4 of the mobile communication system



FEE TRANSMITTAL

Patent fees are subject to annual revision.

Complete If Known

Application Number	09/801,807
Filing Date	9 March 2001
First Named Inventor	TAE-YOUNG KIL
Examiner Name	DANIEL JR., WILLIE J.
Group/Art Unit	2686
Attorney Docket No.	P56258

TOTAL AMOUNT OF PAYMENT

(\$) **500.00**

METHOD OF PAYMENT (check one)

1. ☒ Payment Enclosed:

(CHECK #48513)

☒ Check ☐ Credit Card ☐ Money Order
☐ Other

☐ Charge Any Additional Fee Required Under 37 C.F.R. §1.16 and 1.17.

☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☒ The Commissioner is hereby authorized to charge any deficiency and credit any over payments to:

Deposit Account Number: **02-4943**

FEE CALCULATION

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
EXTENSION OF TIME FEES					
1251	120	2251	60	Extension for reply within first month	\$
1252	450	2252	225	Extension for reply within second month	\$
1253	1020	2253	510	Extension for reply within third month	\$
1254	1590	2254	795	Extension for reply within fourth month	\$
1255	2160	2255	1080	Extension for reply within fifth month	\$
APPEAL					
1401	500	2401	250	Notice of Appeal	\$
1402	500	2402	250	Filing a brief in support of an appeal	\$500.00
1403	1000	2403	500	Request for oral hearing	\$
CLAIMS					
1201	200	2201	100	Independent claims in excess of 3	\$
1202	50	2202	25	claims in excess of 20	\$
Other Fee (specify) _____ \$					
Other Fee (specify) _____ \$					
Other Fee (specify) _____ \$					

FEE CALCULATION

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
MISCELLANEOUS					
1801	\$790	2801	\$395	Request for continued examination (RCE)	\$
1806	\$180			Submission of an IDS	\$
1814	\$130	2814	\$130	Statutory disclaimer	\$
8021	\$40			Recordation of assignment per property	\$
TRADEMARK					
6001/7001			\$335	Application for registration, per class	\$
6002/7002			\$100	Amendment to Allege Use, per class	\$
6003/7003			\$100	Statement of Use, per class	\$
6004/7004			\$150	Request for six-month extension of time, per class	\$
6205/7205			\$100	\$8 affidavit, per class	\$
6208/7208			\$200	\$15 affidavit, per class	\$
6201/7201			\$400	Application for renewal, per class	\$
6403/7403			\$100	Ex parte appeal, per class	\$
PETITION					
1462			\$400	Petitions to Director (Group I)	\$
1463			\$200	Petitions to Director (Group II)	\$
1464			\$130	Petitions to Director (Group III)	\$
1452	\$500	2452	\$250	Petitions to revive unavoidably abandoned application	\$
1453	\$1500	2453	\$750	Petitions to revive unintentionally abandoned application	\$
PATENT MAINTENANCE					
1551	\$900	2551	\$450	Due at 3.5 years	\$
1552	\$2300	2552	\$1150	Due at 7.5 years	\$
1553	\$3800	2553	\$1900	Due at 11.5 years	\$
Other Fee (specify) _____ \$					
Other Fee (specify) _____ \$					
Other Fee (specify) _____ \$					

SUBTOTAL: LEFT COLUMN

\$500.00

SUBTOTAL: RIGHT COLUMN

\$0.00

SUBMITTED BY

Complete (if applicable)

Typed or Printed Name

Robert E. Bushnell, Esq.

Reg. Number

27,774

Signature

Date

17 December 2004

Deposit Account User ID